US010650785B1

(12) **United States Patent**
Tuomisto et al.

(10) **Patent No.: US 10,650,785 B1**
(45) **Date of Patent: May 12, 2020**

(54) **COLOR MANAGEMENT OF DISPLAY DEVICE**

(71) Applicant: **Microsoft Technology Licensing, LLC**, Redmond, WA (US)

(72) Inventors: **Pietari Tuomisto**, Redmond, WA (US); **William J. Cummings**, Clinton, WA (US); **Dmitry Reshidko**, Sammamish, WA (US); **Tuomas Vallius**, Kirkland, WA (US); **David Douglas Bohn**, Fort Collins, CO (US)

(73) Assignee: **MICROSOFT TECHNOLOGY LICENSING, LLC**, Redmond, WA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **16/281,778**

(22) Filed: **Feb. 21, 2019**

(51) **Int. Cl.**

G09G 5/02	(2006.01)
G09G 3/02	(2006.01)
G06T 7/30	(2017.01)
G09G 3/00	(2006.01)
G09G 3/32	(2016.01)
G06T 7/70	(2017.01)

(52) **U.S. Cl.**

CPC ***G09G 5/026*** (2013.01); ***G06T 7/30*** (2017.01); ***G06T 7/70*** (2017.01); ***G09G 3/002*** (2013.01); ***G09G 3/02*** (2013.01); ***G09G 3/32*** (2013.01); *G09G 2320/0666* (2013.01); *G09G 2320/0693* (2013.01); *G09G 2340/0407* (2013.01); *G09G 2340/0464* (2013.01); *G09G 2340/0492* (2013.01); *G09G 2340/08* (2013.01); *G09G 2340/12* (2013.01)

(58) **Field of Classification Search**
None
See application file for complete search history.

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Primary Examiner — Frank S Chen
(74) *Attorney, Agent, or Firm* — Arent Fox LLP

(57) **ABSTRACT**

MicroLED arrays offer a small form factor solution for the HMD image sources since they do not need a separate illumination optics. Features of the present disclosure implement a MicroLED display system that incorporate a plurality of monochrome projectors (e.g., three MicroLED projectors) to generate three monochrome images (e.g., red, blue, and green images) that are separately input into a single waveguide of the HMD and combined to form an image that is displayed to the user. By utilizing a single waveguide that includes a plurality of spatially separated input regions (e.g., a region for inputting blue light, a region for inputting red light, a region for inputting green light), the MicroLED display system of the present disclosure may reduce the form factor of the HMD device because of the reduced number of plates that may be required to combine the three monochrome images.

19 Claims, 8 Drawing Sheets